



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,418	09/30/2002	Kevin Mark Powell	610P002c/p	6997

7590
Kevin S Lemack
Niels & Lemack
176 E Main Street
Westboro, MA 01581

08/04/2003

EXAMINER

TUDOR, HAROLD JAY

ART UNIT	PAPER NUMBER
----------	--------------

3641

DATE MAILED: 08/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application 10/089418	Applicant(s) Powell	
	Examiner Tuder H-J	Art Unit 3641	Confirmation No.

- The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address -

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**. ☒ This action is non-final.
- ☐ Since this application is in condition for allowance except for the formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-23 is/are pending in this application.
- Of the above claim(s) 10-13, 22 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-9, 14-21, 23 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved or ☐ disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.
- ☐ The drawing(s) filed on _____ is/are ☐ accepted or ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d) or (f).
- ☐ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____
- ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- *Certified copies not received: _____
- ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- ☐ The translation of the foreign language provisional application has been received.
- ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 405
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

BEST AVAILABLE COPY

Art Unit: 3641

1. Applicant has elected, without traverse, the species of Fig. 16. Claims 1-9, 14-21 and 23 read on the elected species.

Claims 10-13 and 22, drawn to the non-elected species, have been withdrawn from consideration in accordance with 37 CFR 1.142(b).

2. The disclosure is objected to because of the following informalities: In the last line of page 5, --net-- should be substituted for "nett". The specification does not define "GRP", in line 20 of page 8. In line 24 of page 9, --a-- should be substituted for "an". The exact meaning of "nacelle", in line 3 of page 16, is unclear. Element 154 appears to be a nose cone or ogive of a projectile. Appropriate correction is required.

3. The use of the trademark Perspex has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Art Unit: 3641

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-9, 14-21 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The clause "an explosive charge defining boundary walls of the cavity", in lines 1 and 2 of claim 1, is misleading if not inaccurate in that the explosive charge only defines the rear wall of the cavity, note Fig. 16. The term "or", in line 2 of claim 8, is alternative. The exact meanings of "chemical" and "composition", in line 2 of claim 8, are unclear. The term "nacelle", in line 2 of claim 9, is misleading if not inaccurate in that element 154 is a nose cone or ogive of the projectile. Claim 9 is vague and indefinite in that the particulate material in element 154 is in addition to the particulate material in the liner 158 in the cavity of the explosive. The above are illustrative only.

Art Unit: 3641

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 2, 7, 8, 14, 19 and 21, as far as they can be understood because of their indefiniteness, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kray. Kray discloses a shaped charge projectile comprising a liner formed by an inner liner and an outer liner and aluminum powder contained within the inner and outer liner, lines 22 and 23 of col. 2.

9. Claims 1, 2, 5-8, 14, 19 and 21, as far as they can be understood because of their indefiniteness, are rejected under 35

Art Unit: 3641

U.S.C. 102(b) as being clearly anticipated by Lips. Lips discloses a shaped charge comprising a liner having a coating 3.1 thereon comprising aluminum particles in a polymeric binder.

10. Claims 1-3, 5-8, 14-16, 19 and 21, as far as they can be understood because of their indefiniteness, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by German Patent 1,136,920. The German Patent discloses, in Fig. 3 for example, a shaped charge comprising an inner liner 18, an outer liner 16, and a mixture of aluminum and paraffin wax within the inner and outer liners.

11. Claims 3 and 6, as far as they can be understood because of their indefiniteness, are rejected under 35 U.S.C. 103(a) as being unpatentable over Kray. It would have been an obvious design choice to one having ordinary skill in the art at the time the invention was made to employ either a loose particulate or a compressed particulate in between the liners 15 and 16 to achieve a desired result.

12. Claim 4, as far as it can be understood because of its indefiniteness, is rejected under 35 U.S.C. 103(a) as being

Art Unit: 3641

unpatentable over either Kray or German Patent 1,136,920 in view of German Patent 1,130,746. Kray and German Patent 920 are applied as above. However, they do not disclose a liner formed of glass reinforced plastic. German patent 746 teaches glass reinforced plastic to be an art recognized equivalent material for forming a liner of a shaped charge. To form Kray liners or the German 920 liners of glass reinforced plastic, as taught by German Patent 746, would have been obvious to one having ordinary skill in the art at the time the invention was made.

13. Claim 9, as far as it can be understood because of its indefiniteness, is rejected under 35 U.S.C. 103(a) as being unpatentable over either Kray or German Patent 1,136,920 in view of Evans, Jr.. Kray and the German patent are applied as above. However, they do not disclose a particulate material in the nose portion of the device. Evans, Jr. teaches that it is old and well known in the art to employ an explosive particulate material 23 in the front portion 12 of a shaped charge device to enhance the explosive effect of the device. To employ an explosive particulate material in the front portion of either the Kray device or the German device to enhance the explosive effect, as

Art Unit: 3641

taught by Evans et al, would have been obvious to one having ordinary skill in the art at the time the invention was made.

14. Claim 17, as far as it can be understood because of its indefiniteness, is rejected under 35 U.S.C. 103(a) as being unpatentable over either Kray, Lips or German Patent 1,136,920 in view of German Patent 3,834,491. Kray, Lips and German Patent 920 are applied as above. However, they do not disclose an explosive charge formed by a plurality of pellets. German Patent 3,834,491 teaches that it is old and well known in the art to form an explosive charge of a shaped charge of a plurality of pellets to enhance to the explosion. To employ an explosive charge formed of a plurality of explosive pellets in either the Kray device, the Lips device or the German Patent 920 device, as taught by German Patent 491 to enhance the explosion, would have been obvious to one having ordinary skill in the art at the time the invention was made.

15. Claim 18, as far as it can be understood because of its indefiniteness, is rejected under 35 U.S.C. 103(a) as being unpatentable over either Kray, Lips or German Patent 1,136,920 in view of German Patent 3,834,491 and Christmann et al. Kray, Lips

Art Unit: 3641

and German Patent 920 are applied as above. However, they do not disclose an aluminized explosive. Christmann et al teaches aluminizing an explosive charge of a shaped charge device to enhance the explosive effect. To employ aluminized explosive pellets in the devices form by the combinations of either Kray, Lips or German Patent 920 and German Patent 491, as taught by Christmann et al, would have been obvious to one having ordinary skill in the art at the time the invention was made.

16. Claims 20 and 23, as far as they can be understood because of their indefiniteness, are rejected under 35 U.S.C. 103(a) as being unpatentable over either Kray, Lips or German Patent 1,136,920 in view of Manhart. Kray, Lips and German Patent 920 are applied as above. However, they do not disclose using an explosive device for avalanche control. Manhart teaches that it is old and well known in the art to use an explosive device for avalanche control. To employ the shaped charge devices of either Kray, Lips, or German Patent 920 for avalanche control, as taught by Manhart, would have been obvious to one having ordinary skill in the art at the time the invention was made.

Art Unit: 3641

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harold J. Tudor, whose telephone number is (703) 306-4172.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198. The fax phone number for this Group is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.


HAROLD J. TUDOR
PRIMARY EXAMINER